Wilf Csaplar Jr. Economics 316 Homework #3 **Due Tuesday 2/19**

Place your name on the back of this sheet of paper and nowhere else. Staple your answers on the front of this sheet of paper. Failure to follow these directions will cost you 1 point. Your assignment will be typed, except graphs can be drawn by hand and mathematical equations can be done by hand. Failure to type it will cost you 10 points. If you use double-sided printing or print on the back of scrap paper, I will give you one additional point.

1) (20 points) Draw the balance sheets for a bank and the Federal Reserve. Assume the bank has no excess reserves. Illustrate the effects if the Fed's buying $1000 worth of bonds from the bank. Briefly explain the entries on the balance sheets. How much excess reserves does the bank have now? Show all calculations. Illustrate the effect of the bank loaning out its excess reserves. Briefly explain the entries on the balance sheets. How much did the money supply increase? How much excess reserves does the bank have now? Why isn't the answer zero?

2) (20 points) Draw the supply and demand for money. Use it to show the Fed cannot control both the money supply and interest rates. Explain the logic.

3) (25 points) In 2000, Russia's required reserve ratio was 20%. The last time I checked, its required reserve ratio ranges between 0% and 3% depending upon the type of account and whether it is owned by a foreigner or a Russian. Without using a balance sheet, explain the impact on money supply of them lowering the required reserve ratio. What are the advantage and disadvantage of lowering the required reserve ratio so much? Was it a good idea? Explain your logic.

4) (20 points) Suppose a three-month bond with a face value of $1000 is currently selling for $990. What is the bond effective yield (BEY)? Briefly explain why you put each number in the place you put it. What is the effective annual rate(EAR)? Briefly explain why you put each number in the place you put it. Why isn't the EAR four times the BEY?

5) (15 points) Suppose a $10,000 Treasury Bill maturing in 60 days has an asked (discount) yield of .2%. Calculate the selling price of the bond. Briefly state what you did.